Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-84. (canceled)

85. (currently amended) A method for inducing autoantibodies against a pathogenic self-protein in a subject, said method comprising:

administering to the subject an analog of the pathogenic self-protein made by molecular biological means, wherein said analog is made by substituting one or more peptide fragments in the pathogenic self-protein with a corresponding number of immunodominant foreign T-cell epitopes such that the tertiary structure of the pathogenic self-protein is essentially preserved such that said analog induces an antibody response as evidenced by antibody binding to the unmodified self-protein;

wherein said immunodominant foreign T-cell epitopes elicit a T-cell response in multiple MHC-haplotypes; and

wherein autoantibodies against said pathogenic self-protein are generated in a heterogeneous MHC-population.

86. (currently amended) The method of claim 85, wherein said immunodominant foreign T-cell epitopes are inserted so as to preserve N-terminal and C-terminal flanking regions of amino acid sequences from the original pathogenic self-protein on both sides of the T-cell epitope.

87. (previously presented) The method of claim 85, wherein the immunodominant foreign T-cell epitopes originate from tetanus toxoid or diptheria toxoid.

88. (withdrawn) An autovaccine against pathogenic self-proteins in humans or animals comprising:

an analog of a pathogenic self-protein made by substituting one or more peptide fragments in the pathogenic self-protein with a corresponding number of immunodominant foreign T-cell epitopes such that the tertiary structure of the pathogenic self-protein is essentially preserved; wherein said immunodominant foreign T-cell epitopes elicit a T-cell response in multiple MHC-haplotypes; and

a pharmaceutically acceptable adjuvant.

89. (withdrawn) The autovaccine of claim 88, wherein the pharmaceutically acceptable adjuvant is selected from the group consisting of calcium phosphate, saponin, quil A and biodegradable polymers.

90. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein analog is present in the form of a fusion protein with an immunologically active cytokine.

91. (withdrawn) The autovaccine of claim 90, wherein the immunologically active cytokine is selected from the group consisting of GM-CSF and interleukin 2.

92. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is TNFα or γ-interferon.

93. (withdrawn) A method for the treatment of cachexia comprising administration of an effective amount of the autovaccine of claim 92.

94. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is IgE.

95. (withdrawn) A method for the treatment of allergy comprising administration of an effective amount of the autovaccine of claim 94.

96. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is TNFα, TNFβ or interleukin 1.

97. (withdrawn) A method for the treatment of chronic inflammatory diseases comprising administration of an effective amount of the autovaccine of claim 88.

98. (withdrawn) A method for the treatment of rheumatoid arthritis or inflammatory bowel disease comprising administration of an effective amount of the autovaccine of claim 88.

99. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is TNFα.

100. (withdrawn) A method for the treatment of diabetes mellitus comprising administration of an effective amount of the autovaccine of claim 99.

101. (previously presented) The method of claim 85, wherein the pathogenic self-protein is selected from the group consisting of TNFα, TNFβ, interleukin 1, γ-interferon and IgE.